CIO Recommendation to the Information Technology Investment Board
for
Project Development Approval

Agency: Virginia Department of Transportation (VDOT)

Project Title: Roadway Network System (RNS)

Project Summary: The Highway Traffic Records Information System (HTRIS) is the official repository of roadway information used for internal management and reporting at VDOT and for federal reporting of the VDOT roadway inventory. Implemented in 1991, HTRIS employs a hierarchical database running on a VITA mainframe. Users of the system cannot easily enter, update, retrieve, sort, or share the HTRIS data. Recently developed and planned information systems cannot directly communicate and share data due to the incompatibility of the hierarchical and relational database systems. The VDOT IT Strategic Plan recommends spatial enablement of the roadway data and data access via the Web. Spatial enablement is not economically or technically feasible with the current HTRIS architecture. The proposed Roadway Network System will replace the HTRIS system and allow for integration with other VDOT systems and spatial enablement of the roadway data. Functionality of five HTRIS subsystems (Roadway Inventory, Accidents, Railroad Crossing Inventory, Highway Performance Monitoring, Central) will be incorporated into the proposed RNS. The HTRIS Pavement Subsystem will be partially replaced, and RNS will interface with two existing Oracle-based systems (Speed Zone and Traffic Management System). The functionality of the HTRIS Traffic Control Inventory and Structures Inventory Subsystems will be transferred into other existing or proposed VDOT systems. The RNS Economic Feasibility Study documents $8.4 million in tangible benefits over the anticipated five-year life of the proposed system. The tangible benefits include reduction in costs from retirement of hardware and software and improved business processes. Tangible and intangible benefits are identified and quantified in the Balanced Scorecard Evaluation. The CIO granted Planning Approval for the project on January 30, 2004. The Transportation Secretariat Oversight Committee recommended the project be approved for development on March 30, 2004. The estimated project cost is **$5,257,000,** which will be funded using non-general funds.

Evaluation Summary: *(A Detailed Balanced Scorecard Project Evaluation is attached.)*

Criteria	Summary	Score
Stakeholder Perspective	Significant tangible and intangible benefits valued at $8.4 million over the five-year life of the asset are identified and substantiated. The proposed investment will improve internal and external customer service delivery, improve reporting of road conditions to the general public and state and federal agencies during emergencies, and allow for spatial enablement of the roadway data.	G
Business Process Perspective	Inventory and historical data are critical to the management and reporting of roadway assets at the internal, state, and federal levels. Approximately $6 million in savings from improved use of resources, improved turnaround time, and expanded capacity of key processes is anticipated. The proposed RNS directly supports feeds to the Highway Performance Monitoring System, which are required for receipt of federal funding.	G
Project Management Perspective	The project proposal and charter present a sound business case and adequately establish scope, schedule, and budget for the project. The agency has acknowledged that adequate and	Y

	sustained funding is available for the duration of the proposed investment. However, the project sponsor is the Director of the Information Technology Applications Division. The majority of the cost justification for RNS is based on savings from re-engineering core business processes. Co-sponsors from the core business areas should be identified and be responsible for the delivery of savings identified as a result of process re-engineering in the co-sponsors' respective business areas.	
Financial and Economic Perspective	The proposed RNS supports delivery and maintenance of the roadway system. The cost/benefit analysis indicates a positive return on investment in both real and nominal terms	G
Enterprise Portfolio Perspective	The project documentation indicates compliance with conceptual and technical requirements of existing Commonwealth Enterprise Architecture Standards. Collaboration between VDOT and the Virginia Geographic Information Network (VGIN), a division of VITA, to implement an enterprise GIS solution, is not adequately addressed.	Y

CIO Recommendation: That the ITIB grant Development Approval for the VDOT Roadway Network System Project and authorize the Chairman of the ITIB to approve, on behalf of the Board, the project charter with the addition of the following contingencies:

1. The Charter is modified to include co-sponsors from the core business areas impacted by business process re-engineering. The roles of the co-sponsors will include delivery of promised savings from identified business process improvements.

2. The Charter is modified to include full integration of the RNS Project GIS component into the Virginia Enterprise GIS, to the full satisfaction of the CIO.

Lemuel C. Stewart, Jr.
CIO of the Commonwealth

Date: April 29, 2004